



H2020-NMBP-15-2019: Safe by design, from science to regulation: metrics and main sectors

Call: H2020-NMBP-TO-IND-2018-2020

Topic: DT-NMBP-02-2018

Type of action: RIA

Specific Challenge:

Risk management involves quantifying hazard (toxicity) and exposure, and taking the necessary steps to reduce both to acceptable levels, ideally at an early stage of the nanomaterial development process (Safe-by-Design). Various industrial sectors, and in particular structural or functional materials, coatings and cosmetics, as well as pharma and health technology are currently searching for ways to mitigate possible risks from nanomaterials and nano-containing products. The challenge now is to distil existing methods into simple, robust, cost-effective methods for monitoring and modelling of physical-chemical properties and biological effect assessment of nanomaterials in relevant use conditions including in product-relevant matrices.

Scope:

Degradation of nano-enabled products and ageing of nanomaterials, and mixture toxicity;

New Safe by Design methods that enable reduction of hazard and exposure through design to an acceptable risk level without affecting the material performance and guide development of safer products at different stages;

Implementation of control measures and mitigation strategies for nanomaterials specific scenarios in various industrial sectors to reach acceptable regulatory risk level on the effectiveness of such measures, and develop computational approaches to model them;

For this topic the parallel calls scheme is envisaged with the USA-NNI. Resulting projects should establish close cooperation mechanisms. Legal, policy making and Responsible Research and Innovation aspects should be integrated in the proposal.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is particularly encouraged.

Proposals submitted under this topic should include actions designed to facilitate cooperation with other projects; to enhance user involvement; and to ensure the accessibility and reusability of data produced in the course of the project.

Activities should start at TRL 4 and achieve TRL 6 at the end of the project.

The Commission considers that proposals requesting a contribution from the EU between EUR 5 and 6 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

Safe by design approaches and tools at an early stage of the nanomaterial development process;

Quality workplaces that ensure maximum technical and economic performance in line with acceptable risk levels;

Control and mitigate exposure to acceptable risk level in case after release of nanomaterials from products;

Develop and validate low-cost techniques for delivering an integrated exposure driven risk assessment and the

associated design of the required post-use monitoring.

Cross-cutting Priorities:

Gender

Socio-economic science and humanities

Open Science

Open Innovation

International cooperation

More information Here

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